

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**

RECEIVED
OCT 08 2002

Form PTO-1449

Applicant: Badger et al.

Serial No.: 10/039,137

Filing Date: December 31, 2001

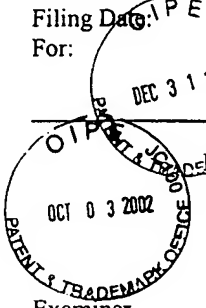
For:

METHODS, APPARATUS, AND SYSTEMS FOR ACCELERATED
BIOREMEDIATION OF EXPLOSIVES

Att'y Docket No. 2411.3301.1US

Group: 3641

GROUP 3600



INFORMATION DISCLOSURE CITATIONS MADE BY APPLICANT

U.S. Patent Documents

Examiner Initial*	Document Number	Issue/Pub. Date	Name	Class	Sub Class	Filing Date
<i>JRM</i>	A1	4,826,601	05/02/89	Spratt et al.	210 610	08/01/86
	A2	4,919,813	04/24/90	Weaver	210 603	08/25/89
	A3	4,925,552	05/15/90	Bateson et al.	210 150	05/12/88
	A4	4,968,427	11/06/90	Glanser et al.	210 610	05/01/89
	A5	5,062,956	11/05/91	Lupton et al.	210 611	03/20/90
	A6	5,071,755	12/10/91	Nelson et al.	210 611	07/09/90
	A7	6,084,150	07/04/00	Crawford et al.	588 244	02/12/97
	A8	6,334,954	01/01/02	Crawford et al.	210 610	06/05/00
	A9	6,348,639	02/19/02	Crawford et al.	588 244	06/06/00
<i>JRM</i>	A10	2002/0078849	06/27/02	Badger et al.		

Foreign Patent Documents

Examiner Initial*	Document Number	Pub. Date	Country or Patent Office	Sub Class	Class	Trans- lation
<i>JRM</i>	A11	251,320	01/07/88	Europe	C02F 3/34	N/A
	A12	3,818,398	12/14/89	Germany	A01B 79/00	No
	A13	8,602,985	06/16/88	Netherlands	B09B 3/00	No
	A14	WO 91/15440	10/17/91	PCT	C05F 11/08	N/A
<i>JRM</i>	A15	WO 95/01311	01/12/95	PCT	C02F 3/34	No
<i>JRM</i>	A16	WO 95/03259	02/02/95	PCT	C05F 11/08	N/A

Examiner

EXAMINER

Form PTO-1449

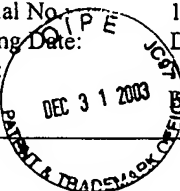
Applicant: Badger et al.

Att'y Docket No. 2411.3301.1US

Serial No. 10/039,137

Group: 3641

Filing Date: December 31, 2001

For: METHODS, APPARATUS, AND SYSTEMS FOR ACCELERATED
BIOREMEDIATION OF EXPLOSIVESOther Documents

Examiner

Initial*

- REM A17 Berry, D.F., et al., "Microbial Metabolism of Homocyclic and Heterocyclic Aromatic Compounds Under Anaerobic Conditions," 51(1) MICROBIOL. REV. 43-59 (Mar. 1987).
- A18 Braun, Konstantin, et al., "Anaerobic Degradation of 2-Aminobenzoate (Anthranilic Acid) by Denitrifying Bacteria," 48(1) APPL. ENVIRON. MICROBIOL. 102-107 (July 1984).
- A19 Cartwright, N.J. et al., "Bacterial Degradation of the Nitrobenzoic Acids," 71 BIOCHEM. J. 248-261 (1959).
- A20 Channon, H.J., et al., "The Metabolism of 2:4:6-trinitrotoluene (α -T.N.T.)," 38 BIOCHEM. J. 70-85 (1944).
- A21 Doyle, Richard C., et al., "Effect of Dairy Manure and Sewage Sludge on [14-C]-Pesticide Degradation in Soil," 26(4) J. AGRIC. FOOD CHEM. 987-989 (1978).
- A22 Federle, Thomas W., "Mineralization of Monosubstituted Aromatic Compounds in Unsaturated and Saturated Subsurface Soils," 34 CAN. J. MICROBIOL. 1037-1042 (1988).
- A23 Fröslie, Arne, et al., "Ruminal Metabolism of DNOC and DNBP," 11 ACTA VET. SCAND. 114-132 (1970).
- A24 Gorontzy, Thomas, et al., "Microbial Transformation of Nitroaromatic Compounds Under Anaerobic Conditions," 139 J. GEN. MICROBIOL. 1331-1336 (1993).
- A25 Goszczynski, Stefan, et al., "Isotopically Labelled Compounds for Hazardous Waste Site Cleanup Investigations: Part I. Synthesis of [phenyl-U-.sup.14 C] labelled 2,4-dinitro-6-sec-butylphenol (dinoseb) and [phenyl-U-.sup.14 C] labelled 4-n-propylphenol," 24(1) J. LABELLED COMPOUNDS AND RADIOPHARMACEUTICALS 35-42 (1991).
- A26 Gottschalk, Gerhard, BACTERIAL METABOLISM 157-162 (2d ed. 1986).
- A27 Heinis, F.S., et al., "Verwijdering van Bodemverontreiniging," 39 PT/CIVIELE TECHNIEK 7-15 (1984).
- AG A28 Hallas, Laurence E., et al., "Microbial Transformation of Nitroaromatic Compounds in Sewage Effluent," 45(4) APPL. ENVIRON MICROBIOL. 1234-1241 (Apr. 1983).

continued . . .

Examiner

Date Considered

*EXAMINER: Initials of the examiner who has examined the application and found it to be in conformity with the requirements of the Patent Act, 1986, and the rules thereunder, shall be entered in the space provided for this purpose.

Form PTO-1449

Applicant:

Badger et al.

Att'y Docket No. 2411.3301.1US

Serial No.:

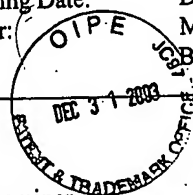
10/039,137

Group: 3641

Filing Date:

December 31, 2001

For:

METHODS, APPARATUS, AND SYSTEMS FOR ACCELERATED
BIOREMEDIATION OF EXPLOSIVESOther Documents (cont.)

Examiner

Initial*

A29

Jensen, H.L., et al., "Microorganisms that Decompose Nitro-Aromatic Compounds, With Special Reference to Dinitro-Ortho-Cresol," 17 ACTA AGRICULTURAE SCANDINAVICA 115-126 (1967).

A30

Kaake, Russell H. et al., "Bioremediation of Soils Contaminated with the Herbicide 2-sec-Butyl-4,6-Dinitrophenol (Dinoseb)," 58(5) APPL. ENV. MICROBIOL. 1683-1689 (May 1992).

A31

Kaplan, D.L., et al., "Thermophilic Biotransformations of 2,4,6-Trinitrotoluene Under Simulated Composting Conditions," 44(3) APPL. ENVIRON. MICROBIOL. 757-760 (Sept. 1982).

A32

Kaplan, David L., "Biotransformation Pathways of Hazardous Energetic Organo-Nitro Compounds," in BIOTECHNOLOGY AND BIODEGRADATION 155-180 (Kamely, D. et al., eds. 1990).

A33

Kuhn, Elmar P., et al., "Anaerobic Degradation of Alkylated Benzenes in Denitrifying Laboratory Aquifer Columns," 54(2) APPL. ENVIRON. MICROBIOL. 490-496 (Feb. 1988).

A34

McBride, Kevin E., et al., "Metabolism of the herbicide bromoxynil by *Klebsiella pneumoniae* subsp. *ozaenae*," 52(2) APPL. ENVIRON. MICROBIOL. 325-330 (Aug. 1986).

A35

McCormick, Neil G., et al., "Microbial Transformation of 2,4,6-Trinitrotoluene and Other Nitroaromatic Compounds," 31(6) APPL. ENVIRON. MICROBIOL. 949-958 (June 1976).

A36

Naumova, R.P., et al., "Possibility of Deep Bacterial Destruction of 2,4,6-Trinitrotoluene," 57 MIKROBIOLOGIYA 218-222 (1988).

A37

Parris, George E., "Environmental and Metabolic Transformations of Primary Aromatic Amines and Related Compounds," 76 RESIDUE REVIEWS 1-30 (1980).

A38

Preuss, Andrea, et al., "Anaerobic transformation of 2,4,6-trinitrotoluene (TNT)," 159 ARCH. MICROBIOL. 345-353 (1993).

A39

Pumfrey, L., et al., "A Clostridium Species that Grows on 2,4,6-trinitrotoluene (TNT)," in ABSTR. 93rd GEN. MEET. AM. SOC. MICROBIOL. 421, Abs. No. Q-414 (1993).

continued...

Examiner:

Date Considered:

Dec 13, 2002

*EXAMINER: Initial if reference considered whether or not citation is in conformance with MPEP 601.01(a) and (b) through citation if not in conformance and not considered. Include copy of this form with the communication to the applicant.

Form PTO-1449

Applicant:

Badger et al.

Serial No.:

10/039,137

Filing Date:

December 31, 2001

For:

METHODS, APPARATUS, AND SYSTEMS FOR ACCELERATED
BIOREMEDIATION OF EXPLOSIVES

Att'y Docket No. 2411.3301.1US

Group: 3641

Other Documents (cont.)Examiner
Initial*

A40

Rafii, Fatemah, et al., "Reduction of Nitroaromatic Compounds by Anaerobic Bacteria Isolated From the Human Gastrointestinal Tract," 57 APPL. ENVIRON. MICROBIOL. 962-968 (1991).

A41

Rafii, Fatemeh, et al., "Reduction of Azo Dyes and Nitroaromatic Compounds by the Same Extracellular Enzyme from Clostridium perfringens," in ABSTR. 93rd GEN. MEET. AM. SOC. MICROBIOL. 276 (1993).

A42

Schink, Bernard, "Principles and Limits of Anaerobic Degradation: Environmental and Technological Aspects," in BIOLOGY OF ANAEROBIC MICROORGANISMS 771-846 (Zinder ed. 1988).

A43

Shieh, Chih-Shin, "Physical and Chemical Behavior of Stabilized Sewage Blocks in Seawater," 23(1) ENVIRON. SCI. TECHNOL. 121-125 (1989).

A44

Simmons, Kathleen E., et al., "Oxidative Co-Oligomerization of Guaiacol and 4-Chloroaniline," 23(1) ENVIRON. SCI. TECHNOL. 115-121 (1989).

A45

Smolenski, Walter J., et al., "Biodegradation of Cresol Isomers in Anoxic Aquifers," 53(4) APPL. ENVIRON. MICROBIOL. 710-716 (Apr. 1987).

A46

Spain, Jim C., et al., "Enzymatic Oxidation of p-Nitrophenol," 88(2) BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS 634-641 (1979).

A47

Stevens, Todd O., et al., "Biodegradation of Dinoseb (2-sec-Butyl-4,6-Dinitrophenol) in Several Idaho Soils with Various Dinoseb Exposure Histories," 56(1) APPL. ENV. MICROBIO. 133-139 (Jan. 1990).

A48

Stevens, Todd O., et al., "Selection and Isolation of Bacteria Capable of Degrading Dinoseb (2-sec-butyl-4,6-dinitrophenol)," 2 BIODEGRADATION 1-13 (1991).

A49

Stevens, Todd O., "Biodegradation of Dinoseb (2-sec-Butyl-4,6-Dinitrophenol) and Bioremediation of Dinoseb-Contaminated Soils" (Nov. 1989).

A50

Tiedje, James M., et al., "The Ecology of an Anaerobic Dechlorinating Consortium," in ENVIRONMENTAL BIOTECHNOLOGY 3-14 (Omenn ed. 1988).

A51

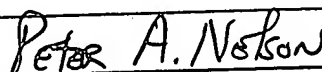
Tratnyek, Paul G., "Abiotic Reduction of Nitro Aromatic Pesticides in Anaerobic Laboratory Systems Designed to Model Dissolved Organic Matter" (Aug. 1987).

A52

Tratnyek, Paul G., et al., "Abiotic Reduction of Nitro Aromatic Pesticides in Anaerobic Laboratory Systems," 37 J. AGRIC. FOOD CHEM. 248-254 (1989).

continued . . .

Examiner:



Date Considered:

DEC. 13, 2002

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449

Applicant:

Badger et al.

Att'y Docket No. 2411.3301.1US

Serial No.:

10/039,137

Group: 3641

Filing Date:

December 31, 2001

For:

METHODS, APPARATUS, AND SYSTEMS FOR ACCELERATED
BIOREMEDIATION OF EXPLOSIVESOther Documents (cont.)Examiner
Initial*

- John A53 T. Tech, Andeas, et al., "Methanogenic Degradation of Anthranilate (2-Aminobenzoate)," 11 SYSTEM. APPL. MICROBIOL. 9-12 (1988).
- A54 Vlassak, K., et al., "Dinoseb as a Specific Inhibitor of Nitrogen Fixation in Soil," 8 SOIL BIOL. BIOCHEM. 91-93 (1976).
- A55 Wallnöfer, P.R., et al., "Transformation of Dinitrophenol-Herbicides by Azotobacter Sp.," 12 CHEMOSPHERE 967-972 (1978).
- A56 Yang, Yan-Xi, et al., "Bacteria Transforming 2,4,6-trinitrotoluene (α -TNT) and Their Application," in 92 CHEMICAL ABSTRACTS 375, Abs. No. 134719 (1980).
- A57 Zeyer, Josef, et al., "Degradation of o-Nitrophenol and m-Nitrophenol by a *Pseudomonas putida*," 32(2) J. AGRIC. FOOD CHEM. 238-242 (1984).
- A58 Ziegler, K., et al., "Studies on the Anaerobic Degradation of Benzoic Acid and 2-Aminobenzoic Acid by a Denitrifying *Pseudomonas* Strain," 149 ARCH. MICROBIOL. 62-69 (1987).
- John A59 Ziegler, Klaus, et al., "Activation of Aromatic Acids and Aerobic 2-Aminobenzoate Metabolism in a Denitrifying *Pseudomonas* Strain," 151 ARCH. MICROBIOL. 171-176 (1989).

References Cited by Applicants

While the filing of Information Disclosure Statements is voluntary, the procedure is governed by the guidelines of Section 609 of the Manual of Patent Examining Procedure and 37 C.F.R. §§ 1.97 and 1.98. To be considered a proper Information Disclosure Statement, Form PTO-1449 shall be accompanied by a copy of each listed patent or publication or other item of information and a translation of the pertinent portions of foreign documents (if an existing translation is readily available to the applicant), an explanation of relevance of each reference not in the English language, and should be submitted in a timely manner as set out in MPEP Sec. 609.

Examiners will consider all citations submitted in conformance with 37 C.F.R. § 1.98 and MPEP Sec. 609 and place their initials adjacent the citations in the spaces provided on this form. Examiners will also initial citations not in conformance with the guidelines which may have been considered. A reference may be considered by the Examiner for any reason whether or not the citation is in full conformance with the guidelines. A line will be drawn through a citation if it is not in conformance with the guidelines AND has not been considered. A copy of the submitted form, as reviewed by the Examiner, will be returned to the applicant with the next communication. The original of the form will be entered into the application file.

Examiner:

Peter A. Nelson

Date Considered:

Dec. 13, 2002

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449

Applicant: Farrell G. Badger et al.

Att'y Docket No. 2411.3301.1US

Serial No.: 10/039,137

Group: 3641

Filing Date: December 31, 2001

For: METHODS, APPARATUS, AND SYSTEMS FOR ACCELERATED
BIOREMEDIATION OF EXPLOSIVESINFORMATION DISCLOSURE CITATIONS MADE BY APPLICANTU.S. Patent Documents

Examiner Initial*	Patent Number	Issue Date	Name	Class	Sub Class	Filing Date	
<i>JP</i>	A1	2,330,110	09/21/43	Buchan	166	21	10/31/41
	A2	3,157,119	11/17/64	Porter	102	21.8	01/27/61
	A3	3,710,718	01/16/73	Grant	102	23	02/04/71
	A4	4,016,117	04/05/77	Griffin	260	17.4	04/05/97
	A5	4,044,684	08/30/77	Gaggini et al.	102	90	07/13/76
	A6	4,064,941	12/27/77	Smith	166	300	08/02/76
	A7	4,108,728	08/22/78	Spinner et al.	195	127	07/28/76
	A8	4,351,729	09/28/82	Witt	210	603	09/28/82
	A9	4,365,557	12/28/82	Couture et al.	102	341	09/22/80
	A10	4,845,034	07/04/89	Menger et al.	435	167	07/04/89
	A11	4,929,552	05/29/90	Gold et al.	435	128	05/29/90
	A12	4,961,381	10/09/90	McLaughlin	102	319	05/12/89
	A13	5,011,614	04/30/91	Gresser et al.	210	761	04/30/91
	A14	5,085,998	02/04/92	Lebron et al.	435	262	02/04/92
	A15	5,120,441	06/09/92	Jackson et al.	210	602	06/09/92
	A16	5,139,365	08/18/92	Chesner	405	129	08/18/92
	A17	5,139,776	08/18/92	Chazono et al.	424	92	02/03/89
	A18	5,296,146	03/22/94	Jackson et al.	210	602	03/22/94
	A19	5,302,285	04/12/94	Attaway et al.	210	605	09/20/93
<i>JP</i>	A20	5,314,821	05/24/94	Tyndall	435	252.1	02/28/94
<i>JP</i>	A21	5,370,845	12/06/94	Miller et al.	422	186.3	08/30/91

(continued)

Examiner:

Peter A. Nelson

Date Considered:

Dec. 13, 2002

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

U.S. Patent Documents (continued)

Examiner Initial*	Patent Number	Issue Date	Name	Class	Sub Class	Filing Date
<i>Jan</i>	A22	5,387,271	02/07/95	Crawford et al.	71 9	07/23/93
	A23	5,392,860	02/28/95	Ross	166 376	03/15/93
	A24	5,414,198	05/09/95	Brodman et al.	588 202	05/09/95
	A25	5,420,035	05/30/95	Tyndall	435 252.1	05/30/95
	A26	5,449,618	09/12/95	Tyndall et al.	435 262.5	09/12/95
	A27	5,455,173	10/03/95	Crawford et al.	435 264	04/18/94
	A28	5,478,743	12/26/95	Perkins et al.	435 262.5	12/26/95
	A29	5,484,730	01/16/96	Tyndall et al.	435 264	02/21/95
	A30	5,511,482	04/30/96	DiPietropolo	102 426	07/11/94
	A31	5,518,919	05/21/96	Tyndall	435 262.5	02/15/95
	A32	5,543,324	08/06/96	Rajan	435 252.4	02/28/95
	A33	5,578,487	11/26/96	Tyndall	435 262.5	05/19/95
	A34	5,578,488	11/26/96	Tyndall et al.	435 262.5	09/05/95
	A35	5,593,888	01/14/97	Glaze et al.	435 262.5	04/05/94
	A36	5,610,062	03/11/97	Tyndall	435 252.4	05/19/95
	A37	5,616,162	04/01/97	Crawford et al.	71 9	10/20/95
	A38	5,711,020	01/20/98	Wolfe et al.	588 203	04/16/96
	A39	5,736,669	04/07/98	Thomas et al.	102 293	06/04/96
	A40	5,763,736	06/09/98	Daume	588 203	04/10/97
	A41	5,763,815	06/09/98	Thomas et al.	102 293	06/04/96
	A42	5,814,514	09/29/98	Steffan et al.	435 262	07/10/96
<i>Jan</i>	A43	5,849,984	12/15/98	Kim et al.	588 203	05/14/97

(continued)

Examiner:

Peter A. Nelson

Date Considered:

Dec. 13, 2002

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

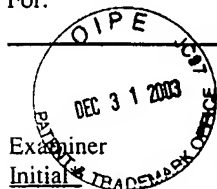
EXPRESS MAIL LABEL NO. EL740547624US
Form PTO-1449

Applicant: Farrell G. Badger et al.
Serial No.: 10/039,137
Filing Date: December 31, 2001

Att'y Docket No. 2411.3301.1US
Group: 3641

Sheet 3 of 4

For: METHODS, APPARATUS, AND SYSTEMS FOR ACCELERATED
BIOREMEDIATION OF EXPLOSIVES



U.S. Patent Documents (continued)

Examiner Initial*	Patent Number	Issue Date	Name	Class	Sub Class	Filing Date	
<i>Jem</i>	A44	6,051,420	04/18/00	Radtke et al.	435	262.5	05/20/98
—	A45	6,066,772	05/23/00	Hater et al.	588	202	08/28/98
—	A46	6,120,627	09/19/00	Badger et al.	149	108.8	10/18/96
—	A47	6,121,506	09/19/00	Abel et al.	588	200	06/10/99
<i>Jem</i>	A48	6,334,395	01/01/02	Badger et al.	102	293	05/30/97

Foreign Patent Documents

Examiner Initial*	Document Number	Publ. Date	Country or Patent Office	Class	Sub Class	Trans- lation	
<i>Jem</i>	A49	512,660	11/11/92	Europe	A62D	3/00	Yes
—	A50	4,141,940	12/23/93	Germany	F42D	5/04	Yes
—	A51	1,396,372	06/04/75	Great Britain	C06B	31/00	N/A
<i>Jem</i>	A52	2,039,251	07/09/95	Russia	E21C	37/00	Yes

Examiner:

Peter A. Nelson

Date Considered:

Dec. 13, 2002

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Applicant: Farrell G. Badger et al.

Serial No.: 10/039,137

Filing Date: December 31, 2001

For: METHODS, APPARATUS, AND SYSTEMS FOR ACCELERATED
BIOREMEDIATION OF EXPLOSIVES

Att'y Docket No. 2411.3301.1US

Group: 3641

Other Documents

(including author (if listed), title, relevant pages, date of publication including at least month and year).

- A53 Boopathy, R., et al., *Biological Transformation of 2,4,6-Trinitrotoluene (TNT) by Soil Bacteria Isolated from TNT-Contaminated Soil*, 47 Bioresource Technology 19 (1994).
- A54 Boopathy, R., et al., *Biotransformation of 2,4,6-Trinitrotoluene (TNT) by Co-Metabolism with Various Co-Substrates: A Laboratory-Scale Study*, 47 Bioresource Technology 205 (1994).
- A55 Kaplan, David L., *Biotechnology and Bioremediation for Organic Energetic Compounds*, ORGANIC ENERGETIC COMPOUNDS, 373-416 (Marinkas, Paul L. ed. 1944).
- A56 Knezovich, John P., et al., *Chemical and Biological Systems for Treating Waste Streams Contaminated with High Explosives*, paper submitted for JANNAF Safety and Environmental Protection Subcommittee Meeting in Tampa, Florida (December 5-8, 1995).
- A57 Knezovich, John P., et al., *Chemical and Biological Systems for Regenerating Activated Carbon Contaminated with High Explosives*, paper submitted to Proceedings Demin '94 Luxembourg, Luxembourg (November 14-16, 1994).
- A58 Sidhoum, Mohammed, et al., *Enhanced Alkaline Hydrolysis and Biodegradability Studies of Nitrocellulose-Bearing Missile Propellant*, Center for Environmental Engineering, Stevens Institute of Technology 87-98 (January 1998).

References Cited by Applicants

While the filing of Information Disclosure Statements is voluntary, the procedure is governed by the guidelines of Section 609 of the Manual of Patent Examining Procedure and 37 C.F.R. §§ 1.97 and 1.98. To be considered a proper Information Disclosure Statement, Form PTO-1449 shall be accompanied by a copy of each listed patent or publication or other item of information and a translation of the pertinent portions of foreign documents (if an existing translation is readily available to the applicant), an explanation of relevance of each reference not in the English language, and should be submitted in a timely manner as set out in MPEP Sec. 609.

Examiners will consider all citations submitted in conformance with 37 C.F.R. § 1.98 and MPEP Sec. 609 and place their initials adjacent the citations in the spaces provided on this form. Examiners will also initial citations not in conformance with the guidelines which may have been considered. A reference may be considered by the Examiner for any reason whether or not the citation is in full conformance with the guidelines. A line will be drawn through a citation if it is not in conformance with the guidelines AND has not been considered. A copy of the submitted form, as reviewed by the Examiner, will be returned to the applicant with the next communication. The original of the form will be entered into the application file.

Each citation initialed by the Examiner will be printed on the issued patent in the same manner as references cited by the Examiner on Form PTO-892.

The reference designations "A1", "A2", etc. (referring to Applicant's reference 1, Applicant's reference 2, etc.) will be used by the Examiner in the same manner as Examiner's reference designations "A", "B", "C", etc. on Office Action Form PTO-1142.

N:24113301.1US11449.wpd

Examiner:

Peter A. Nelson

Date Considered:

Dec. 13, 2002

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449

Applicant: Badger et al.

Serial No.: 10/039,137

Filing Date: December 31, 2001

For: METHODS, APPARATUS, AND SYSTEMS FOR ACCELERATED BIOREMEDIATION OF EXPLOSIVES

Att'y Docket No. 2411.3301.1US
Group: 3641

#11
IDS

Sheet 1 of 2

RECEIVED
NOV 21 2002
GROUP 3600

INFORMATION DISCLOSURE CITATIONS MADE BY APPLICANTU.S. Patent Documents

-- none --

Foreign Patent Documents

Examiner Initial*	Document Number	Pub. Date	Country or Patent Office	Sub Class	Class	Trans- lation
<i>[Signature]</i>	A1	3,818,398	12/14/89	Germany	A01B 79/00	Yes
<i>[Signature]</i>	A2	8,602,985	06/16/88	Netherlands	B09B 3/00	Yes
<i>[Signature]</i>	A3	WO 95/01311	01/12/95	PCT	C02F 3/34	Yes

Other DocumentsExaminer
Initial*

[Signature] A4

[Signature] A5

Heinis, F.S., et al., "Verwijdering van Bodemverontreiniging," 39 PT/CIVIELE TECHNIEK 7-15 (1984).

Shieh, Chih-Shin, "Physical and Chemical Behavior of Stabilized Sewage Blocks in Seawater," 23(1) ENVIRON. SCI. TECHNOL. 121-125 (1989).

References Cited by Applicants

While the filing of Information Disclosure Statements is voluntary, the procedure is governed by the guidelines of Section 609 of the Manual of Patent Examining Procedure and 37 C.F.R. §§ 1.97 and 1.98. To be considered a proper Information Disclosure Statement, Form PTO-1449 shall be accompanied by a copy of each listed patent or publication or other item of information and a translation of the pertinent portions of foreign documents (if an existing translation is readily available to the applicant), an explanation of relevance of each reference not in the English language, and should be submitted in a timely manner as set out in MPEP Sec. 609.

Examiners will consider all citations submitted in conformance with 37 C.F.R. § 1.98 and MPEP Sec. 609 and place their initials adjacent the citations in the spaces provided on this form. Examiners will not consider citations not in conformance with the guidelines which may have been considered. A reference may be considered by the Examiner for any reason whether or not the citation is in full conformance with the guidelines. A line will be drawn through a citation if it is not in conformance with the guidelines. AND has not

Examiner:

Peter A. Nelson

Date Considered:

Dec 13 2001

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449ion

Farrell G. Badger et al.

For:

EXPLOSIVE DEVICE WITH ACCELERATED
BIOREMEDIATION CAPACITY

Divisional of:

Serial No.: 10/039,137
 Of: Farrell G. Badger, et al.
 Filing Date: December 31, 2001
 Examiner: Peter A. Nelson
 Art Unit: 3641

INFORMATION DISCLOSURE CITATIONS MADE BY APPLICANTU.S. Patent Documents

<u>Examiner Initial*</u>	<u>Document Number</u>	<u>Issue Date</u>	<u>Name</u>	<u>Class</u>	<u>Sub Class</u>	<u>Filing Date</u>
_____ A1	2,330,110	09/21/43	Buchan	166	21	10/31/41
_____ A2	3,157,119	11/17/64	Porter	102	21.8	01/27/61
_____ A3	3,710,718	01/16/73	Grant	102	23	02/04/71
_____ A4	4,016,117	04/05/77	Griffin	260	17.4	11/25/74
_____ A5	4,044,684	08/30/77	Gaggini et al.	102	90	07/13/76
_____ A6	4,064,941	12/27/77	Smith	166	300	08/02/76
_____ A7	4,108,728	08/22/78	Spinner et al.	195	127	07/28/76
_____ A8	4,351,729	09/28/82	Witt	210	603	02/06/80
_____ A9	4,365,557	12/28/82	Couture et al.	102	341	09/22/80
_____ A10	4,826,601	05/02/89	Spratt et al.	210	610	08/01/86
_____ A11	4,845,034	07/04/89	Menger et al.	435	167	01/06/86
_____ A12	4,919,813	04/24/90	Weaver	210	603	08/25/89
_____ A13	4,925,552	05/15/90	Bateson et al.	210	150	05/12/88
_____ A14	4,929,552	05/29/90	Gold et al.	435	128	11/17/89
_____ A15	4,961,381	10/09/90	McLaughlin	102	319	05/12/89
_____ A16	4,968,427	11/06/90	Glanser et al.	210	610	05/01/89

continued . . .

Examiner:

Date Considered:

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449ion

Farrell G. Badger et al.

For:

EXPLOSIVE DEVICE WITH ACCELERATED
BIOREMEDIATION CAPACITY

Divisional of

Serial No.: 10/039,137
 Of: Farrell G. Badger, et al.
 Filing Date: December 31, 2001
 Examiner: Peter A. Nelson
 Art Unit: 3641

U.S. Patent Documents . . . continued

<u>Examiner Initial*</u>	<u>Document Number</u>	<u>Issue Date</u>	<u>Name</u>	<u>Class</u>	<u>Sub Class</u>	<u>Filing Date</u>
_____ A17	5,011,614	04/30/91	Gresser et al.	210	761	04/20/89
_____ A18	5,062,956	11/05/91	Lupton et al.	210	611	03/20/90
_____ A19	5,071,755	12/10/91	Nelson et al.	210	611	07/09/90
_____ A20	5,085,998	02/04/92	Lebron et al.	435	262	05/07/91
_____ A21	5,120,441	06/09/92	Jackson et al.	210	602	05/30/90
_____ A22	5,139,365	08/18/92	Chesner	405	129	09/04/90
_____ A23	5,139,776	08/18/92	Chazono et al.	424	92	02/03/89
_____ A24	5,296,146	03/22/94	Jackson et al.	210	602	06/08/92
_____ A25	5,302,285	04/12/94	Attaway et al.	210	605	09/20/93
_____ A26	5,314,821	05/24/94	Tyndall	435	252.1	02/01/93
_____ A27	5,370,845	12/06/94	Miller et al.	422	186.3	08/30/91
_____ A28	5,387,271	02/07/95	Crawford et al.	71	9	07/23/93
_____ A29	5,392,860	02/28/95	Ross	166	376	03/15/93
_____ A30	5,414,198	05/09/95	Broadman et al.	588	202	08/12/94
_____ A31	5,420,035	05/30/95	Tyndall	435	252.1	02/28/94
_____ A32	5,449,618	09/12/95	Tyndall et al.	435	262.5	12/16/93
_____ A33	5,455,173	10/03/95	Crawford et al.	435	264	04/18/94

continued . . .

Examiner:

Date Considered:

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449ion

Farrell G. Badger et al.



For:

EXPLOSIVE DEVICE WITH ACCELERATED
BIOREMEDIATION CAPACITY

Divisional of:

Serial No.: 10/039,137
 Of: Farrell G. Badger, et al.
 Filing Date: December 31, 2001
 Examiner: Peter A. Nelson
 Art Unit: 3641

*continued . . .*U.S. Patent Documents . . . continued

<u>Examiner Initial*</u>	<u>Document Number</u>	<u>Issue Date</u>	<u>Name</u>	<u>Class</u>	<u>Sub Class</u>	<u>Filing Date</u>
_____ A34	5,478,743	12/26/95	Perkins et al.	435	262.5	03/11/94
_____ A35	5,484,730	01/16/96	Tyndall et al.	435	264	02/21/95
_____ A36	5,511,482	04/30/96	DiPietropolo	102	426	07/11/94
_____ A37	5,518,919	05/21/96	Tyndall	435	262.5	02/15/95
_____ A38	5,543,324	08/06/96	Rajan et al.	435	252.4	02/28/95
_____ A39	5,578,487	11/26/96	Tyndall	435	262.5	05/19/95
_____ A40	5,578,488	11/26/96	Tyndall et al.	435	262.5	11/26/96
_____ A41	5,593,888	01/14/97	Glaze et al.	435	262.5	04/05/94
_____ A42	5,610,062	03/11/97	Tyndall	435	252.4	05/19/95
_____ A43	5,616,162	04/01/97	Crawford et al.	71	9	10/20/95
_____ A44	5,711,020	01/20/98	Wolfe et al.	588	203	04/16/96
_____ A45	5,736,669	04/07/98	Thomas et al.	102	293	06/04/96
_____ A46	5,763,736	06/09/98	Daume	588	203	04/10/97
_____ A47	5,763,815	06/09/98	Thomas et al.	102	293	06/04/96
_____ A48	5,814,514	09/29/98	Steffan et al.	435	262	07/10/96
_____ A49	5,849,984	12/15/98	Kim et al.	588	203	05/14/97

continued . . .

Examiner:

Date Considered:

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449ion

Farrell G. Badger et al.

For: EXPLOSIVE DEVICE WITH ACCELERATED
BIOREMEDIATION CAPACITY

Divisional of:

Serial No.: 10/039,137
Of: Farrell G. Badger, et al.
Filing Date: December 31, 2001
Examiner: Peter A. Nelson
Art Unit: 3641

*continued . . .*U.S. Patent Documents . . . continued

<u>Examiner Initial*</u>	<u>Document Number</u>	<u>Issue Date</u>	<u>Name</u>	<u>Class</u>	<u>Sub Class</u>	<u>Filing Date</u>
_____ A50	5,928,859	07/27/99	Nicklin et al.	435	4	02/02/88
_____ A51	6,051,420	04/18/00	Radtko et al.	435	262.5	05/20/98
_____ A52	6,066,772	05/23/00	Hater et al.	588	202	08/28/98
_____ A53	6,084,150	07/04/00	Crawford et al.	588	244	02/12/97
_____ A54	6,120,627	09/19/00	Badger et al.	149	108.8	10/18/96
_____ A55	6,121,506	09/19/00	Abel et al.	588	200	06/10/99
_____ A56	6,274,368	08/14/01	Nicklin et al.	435	252.1	12/23/98
_____ A57	6,334,395	01/01/02	Badger et al.	102	292	05/30/97
_____ A58	6,334,954	01/01/02	Crawford et al.	210	610	06/05/00
_____ A59	6,348,639	02/19/02	Crawford et al.	588	244	06/06/00
_____ A60	2002/0078849	06/27/02	Badger et al.	102	293	12/31/01

Examiner:

Date Considered:

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449ior

Parrell G. Rediger et al.

For:

EXPLOSIVE DEVICE WITH ACCELERATED BIOREMEDIATION CAPACITY

Divisional of:

Serial No.: 10/039,137
Of: Farrell G. Badger, et al.
Filing Date: December 31, 2001
Examiner: Peter A. Nelson
Art Unit: 3641

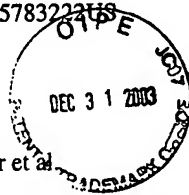
Foreign Patent Documents

<u>Examiner Initial*</u>	<u>Document Number</u>	<u>Pub. Date</u>	<u>Country or Patent Office</u>	<u>Sub Class</u>	<u>Class</u>	<u>Translation</u>
_____ A61	251,320	01/07/88	Europe	C02F	3/34	N/A
_____ A62	512,660	11/11/92	Europe	A62D	3/00	Yes
_____ A63	3,818,398	12/14/89	Germany	A01B	79/00	Yes
_____ A64	4,141,940	12/23/93	Germany	F42D	5/04	Yes
_____ A65	1,396,372	06/04/75	Great Britain	C06B	31/00	N/A
_____ A66	8,602,985	06/16/88	Netherlands	B09B	3/00	Yes
_____ A67	WO 91/15440	10/17/91	PCT	C05F	11/08	N/A
_____ A68	WO 95/01311	01/12/95	PCT	C02F	3/34	Yes
_____ A69	WO 95/03259	02/02/95	PCT	C05F	11/08	N/A
_____ A70	2,039,251	07/09/95	Russia	E21C	37/00	Yes

Examiner:

Date Considered:

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



Form PTO-1449ion

Farrell G. Badger et al.

For:

EXPLOSIVE DEVICE WITH ACCELERATED
BIOREMEDIATION CAPACITY

Divisional of:

Serial No.: 10/039,137
Of: Farrell G. Badger, et al.
Filing Date: December 31, 2001
Examiner: Peter A. Nelson
Art Unit: 3641

Other Documents

Examiner
Initial*

- _____ A71 Berry, D.F., et al., *Microbial Metabolism of Homocyclic and Heterocyclic Aromatic Compounds Under Anaerobic Conditions*, 51(1) MICROBIOL. REV. 43-59 (Mar. 1987).
- _____ A72 Boopathy, R., et al., *Biological Transformation of 2, 4, 6 - Trinitrotoluene (TNT) By Soil Bacteria Isolated from TNT - Contaminated Soil*, 47 BIORESOURCE TECHNOLOGY 19 (1994).
- _____ A73 Boopathy, R., et al., *Biotransformation of 2, 4, 6 - Trinitrotoluene (TNT) By Co-Metabolism With Various Co-Substrates: A Laboratory-Scale Study*, 47 BIORESOURCE TECHNOLOGY 205 (1994).
- _____ A74 Braun, Konstantin, et al., *Anaerobic Degradation of 2-Aminobenzoate (Anthranilic Acid) by Denitrifying Bacteria*, 48(1) APPL. ENVIRON. MICROBIOL. 102-107 (July 1984).
- _____ A75 Cartwright, N.J. et al., *Bacterial Degradation of the Nitrobenzoic Acids*, 71 BIOCHEM. J. 248-261 (1959).
- _____ A76 Channon, H.J., et al., *The Metabolism of 2:4:6-trinitrotoluene (α -T.N.T.)*, 38 BIOCHEM. J. 70-85 (1944).
- _____ A77 Doyle, Richard C., et al., *Effect of Dairy Manure and Sewage Sludge on [14-C]-Pesticide Degradation in Soil*, 26(4) J. AGRIC. FOOD CHEM. 987-989 (1978).
- _____ A78 Federle, Thomas W., *Mineralization of Monosubstituted Aromatic Compounds in Unsaturated and Saturated Subsurface Soils*, 34 CAN. J. MICROBIOL. 1037-1042 (1988).
- _____ A79 Fröslie, Arne, et al., *Ruminal Metabolism of DNOC and DNBP*, 11 ACTA VET. SCAND: 114-132 (1970).
- _____ A80 Gorontzy, Thomas, et al., *Microbial Transformation of Nitroaromatic Compounds Under Anaerobic Conditions*, 139 J. GEN. MICROBIOL. 1331-1336 (1993).

continued . . .

Examiner:

Date Considered:

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO 1449ion

Farrell G. Badger et al.

For: EXPLOSIVE DEVICE WITH ACCELERATED
BIOREMEDIATION CAPACITY

Divisional of:

Serial No.: 10/039,137
Of: Farrell G. Badger, et al.
Filing Date: December 31, 2001
Examiner: Peter A. Nelson
Art Unit: 3641

Other Documents . . . continued

Examiner
Initial*

- _____ A81 Goszczynski, Stefan, et al., *Isotopically Labelled Compounds for Hazardous Waste Site Cleanup Investigations: Part I. Synthesis of [phenyl-U-.sup.14 C] labelled 2,4-dinitro-6-sec-butylphenol (dinoseb) and [phenyl-U-.sup.14 C] labelled 4-n-propylphenol*, 24(1) J. LABELLED COMPOUNDS AND RADIOPHARMACEUTICALS 35-42 (1991).
- _____ A82 Gottschalk, Gerhard, BACTERIAL METABOLISM 157-162 (2d ed. 1986).
- _____ A83 Heinis, F.S., et al., *Verwijdering van Bodemverontreiniging*, 39 PT/CIVIELE TECHNIEK 7-15 (1984).
- _____ A84 Hallas, Laurence E., et al., *Microbial Transformation of Nitroaromatic Compounds in Sewage Effluent*, 45(4) APPL. ENVIRON MICROBIOL. 1234-1241 (Apr. 1983).
- _____ A85 Jensen, H.L., et al., *Microorganisms that Decompose Nitro-Aromatic Compounds, With Special Reference to Dinitro-Ortho-Cresol*, 17 ACTA AGRICULTURAE SCANDINAVICA 115-126 (1967).
- _____ A86 Kaake, Russell H. et al., *Bioremediation of Soils Contaminated with the Herbicide 2-sec-Butyl-4,6-Dinitrophenol (Dinoseb)*, 58(5) APPL. ENV. MICROBIOL. 1683-1689 (May 1992).
- _____ A87 Kaplan, D.L., et al., *Thermophilic Biotransformations of 2,4,6-Trinitrotoluene Under Simulated Composting Conditions*, 44(3) APPL. ENVIRON. MICROBIOL. 757-760 (Sept. 1982).
- _____ A88 Kaplan, David L., *Biotransformation Pathways of Hazardous Energetic Organo-Nitro Compounds*, in BIOTECHNOLOGY AND BIODEGRADATION 155-180 (Kamely, D. et al., eds. 1990).
- _____ A89 Kaplan, David L., *Biotechnology and Bioremediation for Organic Energetic Compounds*, ORGANIC ENERGETIC COMPOUNDS, 373-416 (Marinkas, Paul L. ed. 1994).

continued . . .

Examiner:

Date Considered:

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-144 on

Farrell G. Badger et al.

For:

EXPLOSIVE DEVICE WITH ACCELERATED
BIOREMEDIATION CAPACITY

Divisional of:

Serial No.: 10/039,137
Of: Farrell G. Badger, et al.
Filing Date: December 31, 2001
Examiner: Peter A. Nelson
Art Unit: 3641

Other Documents . . . continued

Examiner
Initial*

- _____ A90 Knezovich, John P., et al., *Chemical and Biological Systems for Regenerating Activated Carbon Contaminated with High Explosives*, paper submitted to PROCEEDINGS DEMIN '94 in Luxembourg, Luxembourg (November 14-16, 1994).
- _____ A91 Knezovich, John P., et al., *Chemical and Biological Systems for Treating Waste Streams Contaminated with High Explosives*, paper submitted for JANNAF Safety and Environmental Protection Subcommittee Meeting in Tampa, Florida (December 5-8, 1995).
- _____ A92 Kuhn, Elmar P., et al., *Anaerobic Degradation of Alkylated Benzenes in Denitrifying Laboratory Aquifer Columns*, 54(2) APPL. ENVIRON. MICROBIOL. 490-496 (Feb. 1988).
- _____ A93 McBride, Kevin E., et al., *Metabolism of the herbicide bromoxynil by Klebsiella pneumoniae subsp. ozaenae*, 52(2) APPL. ENVIRON. MICROBIOL. 325-330 (Aug. 1986).
- _____ A94 McCormick, Neil G., et al., *Microbial Transformation of 2,4,6-Trinitrotoluene and Other Nitroaromatic Compounds*, 31(6) APPL. ENVIRON. MICROBIOL. 949-958 (June 1976).
- _____ A95 Naumova, R.P., et al., *Possibility of Deep Bacterial Destruction of 2,4,6-Trinitrotoluene*, 57 MIKROBIOLOGIYA 218-222 (1988).
- _____ A96 Parris, George E., *Environmental and Metabolic Transformations of Primary Aromatic Amines and Related Compounds*, 76 RESIDUE REVIEWS 1-30 (1980).
- _____ A97 Preuss, Andrea, et al., *Anaerobic transformation of 2,4,6-trinitrotoluene (TNT)*, 159 ARCH. MICROBIOL. 345-353 (1993).
- _____ A98 Pumfrey, L., et al., *A Clostridium Species that Grows on 2,4,6-trinitrotoluene (TNT)*, in ABSTR. 93rd GEN. MEET. AM. SOC. MICROBIOL. 421, Abs. No. Q-414 (1993).

continued . . .

Examiner:

Date Considered:

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449ion

Farrell G. Badger et al.

For:

EXPLOSIVE DEVICE WITH ACCELERATED
BIOREMEDIATION CAPACITY

Divisional of:

Serial No.: 10/039,137
Of: Farrell G. Badger, et al.
Filing Date: December 31, 2001
Examiner: Peter A. Nelson
Art Unit: 3641

Other Documents . . . continued

Examiner
Initial*

- _____ A99 Rafii, Fatemah, et al., *Reduction of Nitroaromatic Compounds by Anaerobic Bacteria Isolated From the Human Gastrointestinal Tract*, 57 APPL. ENVIRON. MICROBIOL. 962-968 (1991).
- _____ A100 Rafii, Fatemeh, et al., *Reduction of Azo Dyes and Nitroaromatic Compounds by the Same Extracellular Enzyme from Clostridium perfringens*, in ABSTR. 93rd GEN. MEET. AM. SOC. MICROBIOL. 276 (1993).
- _____ A101 Schink, Bernard, *Principles and Limits of Anaerobic Degradation: Environmental and Technological Aspects*, in BIOLOGY OF ANAEROBIC MICROORGANISMS 771-846 (Zinder ed. 1988).
- _____ A102 Shieh, Chih-Shin, *Physical and Chemical Behavior of Stabilized Sewage Blocks in Seawater*, 23(1) ENVIRON. SCI. TECHNOL. 121-125 (1989).
- _____ A103 Sidhoum, Mohammed, et al., *Enhanced Alkaline Hydrolysis and Biodegradability Studies of Nitrocellulose-Bearing Missile Propellant*, STEVENS INSTITUTE OF TECHNOLOGY 87-98 (January 1998).
- _____ A104 Simmons, Kathleen E., et al., *Oxidative Co-Oligomerization of Guaiacol and 4-Chloroaniline*, 23(1) ENVIRON. SCI. TECHNOL. 115-121 (1989).
- _____ A105 Smolenski, Walter J., et al., *Biodegradation of Cresol Isomers in Anoxic Aquifers*, 53(4) APPL. ENVIRON. MICROBIOL. 710-716 (Apr. 1987).
- _____ A106 Spain, Jim C., et al., *Enzymatic Oxidation of p-Nitrophenol*, 88(2) BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS 634-641 (1979).
- _____ A107 Stevens, Todd O., *Biodegradation of Dinoseb (2-sec-Butyl-4,6-Dinitrophenol) and Bioremediation of Dinoseb-Contaminated Soils* (Nov. 1989).

continued . . .

Examiner:

Date Considered:

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449ion

Farrell G. Badger et al.

For:

EXPLOSIVE DEVICE WITH ACCELERATED
BIOREMEDIATION CAPACITY

Divisional of:

Serial No.: 10/039,137
Of: Farrell G. Badger, et al.
Filing Date: December 31, 2001
Examiner: Peter A. Nelson
Art Unit: 3641

Other Documents . . . continued

Examiner
Initial*

- _____ A108 Stevens, Todd O., et al., *Biodegradation of Dinoseb (2-sec-Butyl-4,6-Dinitrophenol) in Several Idaho Soils with Various Dinoseb Exposure Histories*, 56(1) APPL. ENV. MICROBIO. 133-139 (Jan. 1990).
- _____ A109 Stevens, Todd O., et al., *Selection and Isolation of Bacteria Capable of Degrading Dinoseb (2-sec-butyl-4,6-dinitrophenol)*, 2 BIODEGRADATION 1-13 (1991).
- _____ A110 Tiedje, James M., et al., *The Ecology of an Anaerobic Dechlorinating Consortium*, in ENVIRONMENTAL BIOTECHNOLOGY 3-14 (Omenn ed. 1988).
- _____ A111 Tratnyek, Paul G., *Abiotic Reduction of Nitro Aromatic Pesticides in Anaerobic Laboratory Systems Designed to Model Dissolved Organic Matter* (Aug. 1987).
- _____ A112 Tratnyek, Paul G., et al., *Abiotic Reduction of Nitro Aromatic Pesticides in Anaerobic Laboratory Systems*, 37 J. AGRIC. FOOD CHEM. 248-254 (1989).
- _____ A113 Tschech, Andeas, et al., *Methanogenic Degradation of Anthranilate (2-Aminobenzoate)*, 11 SYSTEM. APPL. MICROBIOL. 9-12 (1988).
- _____ A114 Vlassak, K., et al., *Dinoseb as a Specific Inhibitor of Nitrogen Fixation in Soil*, 8 SOIL BIOL. BIOCHEM. 91-93 (1976).
- _____ A115 Wallnöfer, P.R., et al., *Transformation of Dinitrophenol-Herbicides by Azotobacter Sp.*, 12 CHEMOSPHERE 967-972 (1978).
- _____ A116 Yang, Yan-Xi, et al., *Bacteria Transforming 2,4,6-trinitrotoluene (α -TNT) and Their Application*, in 92 CHEMICAL ABSTRACTS 375, Abs. No. 134719 (1980).
- _____ A117 Zeyer, Josef, et al., *Degradation of o-Nitrophenol and m-Nitrophenol by a Pseudomonas putida*, 32(2) J. AGRIC. FOOD CHEM. 238-242 (1984).
- _____ A118 Ziegler, K., et al., *Studies on the Anaerobic Degradation of Benzoic Acid and 2-Aminobenzoic Acid by a Denitrifying Pseudomonas Strain*, 149 ARCH. MICROBIOL. 62-69 (1987).

continued . . .

Examiner:

Date Considered:

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449ion

Farrell G. Badger, et al.

For:

EXPLOSIVE DEVICE WITH ACCELERATED
BIOREMEDIATION CAPACITY

Divisional of:

Serial No.: 10/039,137
Of: Farrell G. Badger, et al.
Filing Date: December 31, 2001
Examiner: Peter A. Nelson
Art Unit: 3641

Other Documents . . . continued

Examiner
Initial*

_____ A119 Ziegler, Klaus, et al., *Activation of Aromatic Acids and Aerobic 2-Aminobenzoate Metabolism in a Denitrifying Pseudomonas Strain*, 151 ARCH. MICROBIOL. 171-176 (1989).

References Cited by Applicants

While the filing of Information Disclosure Statements is voluntary, the procedure is governed by the guidelines of Section 609 of the Manual of Patent Examining Procedure and 37 C.F.R. §§ 1.97 and 1.98. To be considered a proper Information Disclosure Statement, Form PTO-1449 shall be accompanied by a copy of each listed patent or publication or other item of information and a translation of the pertinent portions of foreign documents (if an existing translation is readily available to the applicant), an explanation of relevance of each reference not in the English language, and should be submitted in a timely manner as set out in MPEP Sec. 609.

Examiners will consider all citations submitted in conformance with 37 C.F.R. § 1.98 and MPEP Sec. 609 and place their initials adjacent the citations in the spaces provided on this form. Examiners will also initial citations not in conformance with the guidelines which may have been considered. A reference may be considered by the Examiner for any reason whether or not the citation is in full conformance with the guidelines. A line will be drawn through a citation if it is not in conformance with the guidelines AND has not been considered. A copy of the submitted form, as reviewed by the Examiner, will be returned to the applicant with the next communication. The original of the form will be entered into the application file.

Each citation initialed by the Examiner will be printed on the issued patent in the same manner as references cited by the Examiner on Form PTO-892.

The reference designations "A1," "A2," etc. (referring to Applicant's reference 1, Applicant's reference 2, etc.) will be used by the Examiner in the same manner as Examiner's reference designations "A," "B," "C," etc. on Office Action Form PTO-1142.

NA\2411\3301.2us\1449.doc

Examiner:

Date Considered:

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



EXPRESS MAIL LABEL NO. EV325783222US

PATENT APPLICATION
Docket No.: 2411.3301.2US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Farrell G. Badger et al.

For:

EXPLOSIVE DEVICE WITH ACCELERATED
BIOREMEDIATION CAPACITY

Divisional of:

Serial No.: 10/039,137
Of: Farrell G. Badger, et al.
Filing Date: December 31, 2001
Examiner: Peter A. Nelson
Art Unit: 3641

TRANSMITTAL FOR INFORMATION DISCLOSURE STATEMENT

Mail Stop: PATENT APPLICATION
Commissioner for Patents
United States Patent and Trademark Office
P. O. Box 1450
Alexandria, Virginia 22313-1450

Sir:

Transmitted herewith pursuant to 37 C.F.R. § 1.97 for filing relative to the above-captioned United States patent application is an Information Disclosure Statement, which includes the following statements, if any, required variously by 37 C.F.R. § 1.98:

- ☐ Statement of relevance of selected cited references not in the English language which are not translated.
- ☐ Statement that selected cited references are substantially cumulative of an enclosed or previously submitted reference.
- ☒ Statement that selected cited references were previously cited by or submitted to the United States Patent and Trademark Office in a prior application which is relied upon for an earlier filing date under 35 U.S.C. § 120 or § 121.

A. Additional Materials Required Due to Content of Information Disclosure Statement

Transmitted are the following documents in addition to the Information Disclosure Statement as required variously under 37 C.F.R. § 1.98:

X Form PTO-1449 listing one hundred nineteen (119) references submitted for consideration.

___ Copies of _____ (___) of the references listed on the Form PTO-1449.

___ Specimens constituting _____ (___) of the references listed on the Form PTO-1449.

___ English translations of _____ (___) of the references listed on the Form PTO-1449 which are not in the English language.

X Copies of the following documents from the prosecution of the Parent Application:

X Sheets of Form PTO-1449 as follows:

X As initialed by the Examiner on December 13, 2002, listing references A1-A58;

X As initialed by the Examiner on December 13, 2002, listing references A1-A59; and

X As initialed by the Examiner on December 13, 2002, listing references A1-A5;

___ Sheets of Form PTO-892 as follows:

___ As mailed from the Patent Office on _____, listing references _-_; and

___ As mailed from the Patent Office _____, listing references _-_. .

B. Additional Materials Required Due to Timing of Filing of Information Disclosure Statement

The transmitted Information Disclosure Statement is being filed within one (1) of the following four (4) time periods:

I. X Prior to the later of either three (3) months following the filing date or the mailing of a first Office Action. Accordingly, no materials other than those listed above are enclosed.

II. Following the later of either three (3) months following the filing date or the mailing of a first Office Action, but before the mailing of a final Office Action or a Notice of Allowance. Accordingly, to secure consideration thereof, one (1) of the following is also enclosed or authorized:

 Promptness Certificate; or

 The submission fee set forth in 37 C.F.R. § 1.17 (p) in the amount of \$180.00 is one (1) of the following:

 Enclosed as Check No. ; or

 To be paid from the deposit account of the undersigned as authorized in Section C below.

III. After the mailing of a final Office Action or a Notice of Allowance, but before payment of the Issue Fee. Accordingly, in order to secure consideration thereof, each of the following are also enclosed or authorized:

 Promptness Certificate; and

 The petition fee set forth in 37 C.F.R. § 1.17(p) in the amount of \$180.00 is one (1) of the following:

 Enclosed as Check No. ; or

 To be paid from the deposit account of the undersigned as authorized in Section C below.

IV. _____ After payment of the Issue Fee. Accordingly, in order to secure consideration thereof, each of the following are enclosed or authorized:

_____ To withdraw the above-captioned application from issue, the following are enclosed:

_____ Petition to Withdraw from Issue; and

_____ The petition fee set forth in 37 C.F.R. § 1.17(i)(I) in the amount of \$130.00 is one (1) of the following:

_____ Enclosed as Check No. _____; or

_____ To be paid from the deposit account of the undersigned as authorized in Section C below.

_____ To proceed with further prosecution, the following are enclosed:

_____ Request for Continued Examination; and

_____ The fee for requesting continued examination set forth in 37 C.F.R. § 1.17(e) in the amount of _____ \$710.00 is one (1) of the following:

_____ Enclosed as Check No. _____; or

_____ To be paid from the deposit account of the undersigned as authorized in Section C below.

_____ The submission fee set forth in 37 C.F.R. § 1.17(p) in the amount of \$180.00 is one (1) of the following:

_____ Enclosed as Check No. _____; or

_____ To be paid from the deposit account of the undersigned as authorized in Section C below.

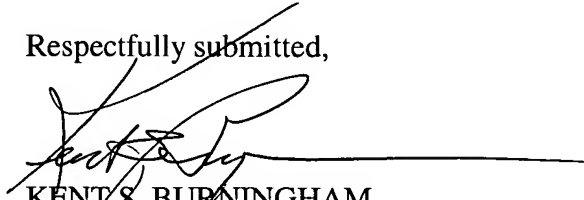
C. Fees

The Commissioner is hereby authorized to charge payment of or any deficiency in the following fees associated with this communication, or to credit any overpayment thereof, to Deposit Account No. 20-1469.

- ☒ Any fee required in relation to filing of this letter or any documents transmitted therewith.
- ☐ The submission fee set forth in 37 C.F.R. § 1.17(p) in the event that 37 C.F.R. § 1.97(c) applies and the Examiner is not satisfied that any Promptness Certificate submitted meets the requirements of 37 C.F.R. § 1.97(e)
- ☐ The submission fee set forth in 37 C.F.R. § 1.17(p).
- ☐ The petition fee set forth in 37 C.F.R. § 1.17(i)(I).
- ☒ Copies in duplicate of this letter are enclosed.

DATED this 30th day of December, 2003.

Respectfully submitted,



KENT S. BURNINGHAM
Attorney for Applicant
Registration No. 30,453

TRASKBRITT, PC
230 South 500 East, Suite 300
Salt Lake City, Utah 84102 USA
Telephone: (801) 532-1922
Toll Free: (800) 900-2001
Facsimile: (801) 531-9168

KSB/tlb

N:\2411\3301.2US\IDS.TRANS.DOC

Docket: 2411.3301.2US

EXPRESS MAIL LABEL NO. EV325783222US

PATENT APPLICATION
Docket No.: 2411.3301.2US



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Farrell G. Badger et al.

For:

EXPLOSIVE DEVICE WITH ACCELERATED
BIOREMEDIATION CAPACITY

Divisional of:

Serial No.: 10/039,137
Of: Farrell G. Badger, et al.
Filing Date: December 31, 2001
Examiner: Peter A. Nelson
Art Unit: 3641

INFORMATION DISCLOSURE STATEMENT

Mail Stop: PATENT APPLICATION
Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, Virginia 22313-1450

Sir:

Pursuant to 37 C.F.R. §§1.97 and 1.98(a)(1), transmitted herewith is a Form PTO-1449 containing a list of all patents, publications, or other references that have come to the attention of one or more of the individuals identified in 37 C.F.R. §1.56(c). While no representation is made that any of these references may be "prior art" within the meaning of that term under 35 U.S.C. §102 or §103, the transmitted list of references is disclosed in compliance with the duty of disclosure set forth in 37 C.F.R. §1.56.

No representation is made that a specific search of office files or Patent Office records has been conducted, or that no better art exists. Nevertheless, the undersigned attorney of record believes that the transmitted references constitute art that is the closest to the claimed invention taken in its entirety of which the undersigned is presently aware, and no art which is closer to the claimed invention taken in its entirety has been knowingly withheld.

The references listed on the transmitted Form PTO-1449 are below classified for the convenience of the Examiner in the following category of references set forth for specific treatment in accordance with the subsections of 37 C.F.R. §1.98.

I. REFERENCES PREVIOUSLY DISCLOSED

The following references listed on the transmitted Form PTO-1449 were each previously submitted or cited by the United States Patent and Trademark Office in the prior prosecution of United States Patent Application Serial No. 10/039,137 filed on December 31, 2001 (hereinafter “the Parent Application”), which is relied upon by the present application for an earlier filing date under 35 U.S.C. § 121:

1. U.S. Patent Documents Previously Disclosed:

<u>Document No.</u>	<u>Issue Date</u>	<u>Patentee</u>
2,330,110	09/21/43	Buchan
3,157,119	11/17/64	Porter
3,710,718	01/16/73	Grant
4,016,117	04/05/77	Griffin
4,044,684	08/30/77	Gaggini et al.
4,064,941	12/27/77	Smith
4,108,728	08/22/78	Spinner et al.
4,351,729	09/28/82	Witt
4,365,557	12/28/82	Couture et al.
4,826,601	05/02/89	Spratt et al.
4,845,034	07/04/89	Menger et al.
4,919,813	04/24/90	Weaver
4,925,552	05/15/90	Bateson et al.
4,929,552	05/29/90	Gold et al.
4,961,381	10/09/90	McLaughlin
4,968,427	11/06/90	Glanser et al.
5,011,614	04/30/91	Gresser et al.
5,062,956	11/05/91	Lupton et al.
5,071,755	12/10/91	Nelson et al.

continued . . .

1. U.S. Patent Documents Previously Disclosed (*continued*)

<u>Document No.</u>	<u>Issue Date</u>	<u>Patentee</u>
5,085,998	02/04/92	Lebron et al.
5,120,441	06/09/92	Jackson et al.
5,139,365	08/18/92	Chesner
5,139,776	08/18/92	Chazono et al.
5,296,146	03/22/94	Jackson et al.
5,302,285	04/12/94	Attaway et al.
5,314,821	05/24/94	Tyndall
5,370,845	12/06/94	Miller et al.
5,387,271	02/07/95	Crawford et al.
5,392,860	02/28/95	Ross
5,414,198	05/09/95	Broadman et al.
5,420,035	05/30/95	Tyndall
5,449,618	09/12/95	Tyndall et al.
5,455,173	10/03/95	Crawford et al.
5,478,743	12/26/95	Perkins et al.
5,484,730	01/16/96	Tyndall et al.
5,511,482	04/30/96	DiPietropolo
5,518,919	05/21/96	Tyndall
5,543,324	08/06/96	Rajan et al.

continued . . .

1. U.S. Patent Documents Previously Disclosed (*continued*)

<u>Document No.</u>	<u>Issue Date</u>	<u>Patentee</u>
5,578,487	11/26/96	Tyndall
5,578,488	11/26/96	Tyndall et al.
5,593,888	01/14/97	Glaze et al.
5,610,062	03/11/97	Tyndall
5,616,162	04/01/97	Crawford et al.
5,711,020	01/20/98	Wolfe et al.
5,736,669	04/07/98	Thomas et al.
5,763,736	06/09/98	Daume
5,763,815	06/09/98	Thomas et al.
5,814,514	09/29/98	Steffan et al.
5,849,984	12/15/98	Kim et al.
5,928,859	07/27/99	Nicklin et al.
6,051,420	04/18/00	Radtke et al.
6,066,772	05/23/00	Hater et al.
6,084,150	07/04/00	Crawford et al.
6,120,627	09/19/00	Badger et al.
6,121,506	09/19/00	Abel et al.
6,274,368	08/14/01	Nicklin et al.
6,334,395	01/01/02	Badger et al.

continued . . .

1. U.S. Patent Documents Previously Disclosed (*continued*)

<u>Document No.</u>	<u>Issue Date</u>	<u>Patentee</u>
6,334,954	01/01/02	Crawford et al.
6,348,639	02/19/02	Crawford et al.
2002/0078849	06/27/02	Badger et al.

2. Foreign Patent Documents Previously Disclosed:

<u>Country</u>	<u>Document Number</u>	<u>Date</u>
Europe	251,320	01/07/88
Europe	512,660	11/11/92
Germany	3,818,398	12/14/89
Germany	4,141,940	12/23/93
Great Britain	1,396,372	06/04/75
Netherlands	8,602,985	06/16/88
PCT	WO 91/15440	10/17/91
PCT	WO 95/01311	01/12/95
PCT	WO 95/03259	02/02/95
Russia	2,039,251	07/09/95

3. Other References:

- Berry, D.F., et al., *Microbial Metabolism of Homocyclic and Heterocyclic Aromatic Compounds Under Anaerobic Conditions*, 51(1) MICROBIOL. REV. 43-59 (Mar. 1987).
- Boopathy, R., et al., *Biological Transformation of 2, 4, 6 - Trinitrotoluene (TNT) By Soil Bacteria Isolated from TNT - Contaminated Soil*, 47 BIORESOURCE TECHNOLOGY 19 (1994).
- Boopathy, R., et al., *Biotransformation of 2, 4, 6 - Trinitrotoluene (TNT) By Co-Metabolism With Various Co-Substrates: A Laboratory-Scale Study*, 47 BIORESOURCE TECHNOLOGY 205 (1994).
- Braun, Konstantin, et al., *Anaerobic Degradation of 2-Aminobenzoate (Anthranilic Acid) by Denitrifying Bacteria*, 48(1) APPL. ENVIRON. MICROBIOL. 102-107 (July 1984).
- Cartwright, N.J. et al., *Bacterial Degradation of the Nitrobenzoic Acids*, 71 BIOCHEM. J. 248-261 (1959).
- Channon, H.J., et al., *The Metabolism of 2:4:6-trinitrotoluene (α -T.N.T.)*, 38 BIOCHEM. J. 70-85 (1944).
- Doyle, Richard C., et al., *Effect of Dairy Manure and Sewage Sludge on [14 C]-Pesticide Degradation in Soil*, 26(4) J. AGRIC. FOOD CHEM. 987-989 (1978).
- Federle, Thomas W., *Mineralization of Monosubstituted Aromatic Compounds in Unsaturated and Saturated Subsurface Soils*, 34 CAN. J. MICROBIOL. 1037-1042 (1988).
- Frösli, Arne, et al., *Ruminal Metabolism of DNOC and DNBP*, 11 ACTA VET. SCAND. 114-132 (1970).
- Gorontzy, Thomas, et al., *Microbial Transformation of Nitroaromatic Compounds Under Anaerobic Conditions*, 139 J. GEN. MICROBIOL. 1331-1336 (1993).

continued . . .

3. Other References (continued)

Goszczynski, Stefan, et al., *Isotopically Labelled Compounds for Hazardous Waste Site Cleanup Investigations: Part I. Synthesis of [phenyl-U-.sup.14 C] labelled 2,4-dinitro-6-sec-butylphenol (dinoseb) and [phenyl-U-.sup.14 C] labelled 4-n-propylphenol*, 24(1) J. LABELLED COMPOUNDS AND RADIOPHARMACEUTICALS 35-42 (1991).

Gottschalk, Gerhard, BACTERIAL METABOLISM, 157-162 (2d ed. 1986).

Hallas, Laurence E., et al., *Microbial Transformation of Nitroaromatic Compounds in Sewage Effluent*, 45(4) APPL. ENVIRON MICROBIOL. 1234-1241 (Apr. 1983).

Heinis, F.S., et al., *Verwijdering van Bodemverontreiniging*, 39 PT/CIVIELE TECHNIEK 7-15 (1984).

Jensen, H.L., et al., *Microorganisms that Decompose Nitro-Aromatic Compounds, With Special Reference to Dinitro-Ortho-Cresol*, 17 ACTA AGRICULTURAE SCANDINAVICA 115-126 (1967).

Kaake, Russell H. et al., *Bioremediation of Soils Contaminated with the Herbicide 2-sec-Butyl-4,6-Dinitrophenol (Dinoseb)*, 58(5) APPL. ENV. MICROBIOL. 1683-1689 (May 1992).

Kaplan, D.L., et al., *Thermophilic Biotransformations of 2,4,6-Trinitrotoluene Under Simulated Composting Conditions*, 44(3) APPL. ENVIRON. MICROBIOL. 757-760 (Sept. 1982).

Kaplan, David L., *Biotransformation Pathways of Hazardous Energetic Organo-Nitro Compounds*, in BIOTECHNOLOGY AND BIODEGRADATION 155-180 (Kamely, D. et al., eds. 1990).

Kaplan, David L., *Biotechnology and Bioremediation for Organic Energetic Compounds*, ORGANIC ENERGETIC COMPOUNDS, 373-416 (Marinkas, Paul L. ed. 1994).

Knezovich, John P., et al., *Chemical and Biological Systems for Regenerating Activated Carbon Contaminated with High Explosives*, paper submitted to PROCEEDINGS DEMIN '94 in Luxembourg, Luxembourg (November 14-16, 1994).

continued . . .

3. Other References (continued)

Knezovich, John P., et al., *Chemical and Biological Systems for Treating Waste Streams Contaminated with High Explosives*, paper submitted for JANNAF Safety and Environmental Protection Subcommittee Meeting in Tampa, Florida (December 5-8, 1995).

Kuhn, Elmar P., et al., *Anaerobic Degradation of Alkylated Benzenes in Denitrifying Laboratory Aquifer Columns*, 54(2) APPL. ENVIRON. MICROBIOL. 490-496 (Feb. 1988).

McBride, Kevin E., et al., *Metabolism of the herbicide bromoxynil by Klebsiella pneumoniae subsp. ozaenae*, 52(2) APPL. ENVIRON. MICROBIOL. 325-330 (Aug. 1986).

McCormick, Neil G., et al., *Microbial Transformation of 2,4,6-Trinitrotoluene and Other Nitroaromatic Compounds*, 31(6) APPL. ENVIRON. MICROBIOL. 949-958 (June 1976).

Naumova, R.P., et al., *Possibility of Deep Bacterial Destruction of 2,4,6-Trinitrotoluene*, 57 MIKROBIOLOGIYA 218-222 (1988).

Parris, George E., *Environmental and Metabolic Transformations of Primary Aromatic Amines and Related Compounds*, 76 RESIDUE REVIEWS 1-30 (1980).

Preuss, Andrea, et al., *Anaerobic transformation of 2,4,6-trinitrotoluene (TNT)*, 159 ARCH. MICROBIOL. 345-353 (1993).

Pumfrey, L., et al., *A Clostridium Species that Grows on 2,4,6-trinitrotoluene (TNT)*, in ABSTR. 93rd GEN. MEET. AM. SOC. MICROBIOL. 421, Abs. No. Q-414 (1993).

Rafii, Fatemeh, et al., *Reduction of Nitroaromatic Compounds by Anaerobic Bacteria Isolated from the Human Gastrointestinal Tract*, 57 APPL. ENVIRON. MICROBIOL. 962-968 (1991).

Rafii, Fatemeh, et al., *Reduction of Azo Dyes and Nitroaromatic Compounds by the Same Extracellular Enzyme from Clostridium perfringens*, in ABSTR. 93rd GEN. MEET. AM. SOC. MICROBIOL. 276 (1993).

continued . . .

3. Other References (continued)

- Schink, Bernard, *Principles and Limits of Anaerobic Degradation: Environmental and Technological Aspects*, in BIOLOGY OF ANAEROBIC MICROORGANISMS 771-846 (Zinder ed. 1988).
- Shieh, Chih-Shin, *Physical and Chemical Behavior of Stabilized Sewage Blocks in Seawater*, 23(1) ENVIRON. SCI. TECHNOL. 121-125 (1989).
- Sidhoum, Mohammed, et al., *Enhanced Alkaline Hydrolysis and Biodegradability Studies of Nitrocellulose-Bearing Missile Propellant*, STEVENS INSTITUTE OF TECHNOLOGY 87-98 (January 1998).
- Simmons, Kathleen E., et al., *Oxidative Co-Oligomerization of Guaiacol and 4-Chloroaniline*, 23(1) ENVIRON. SCI. TECHNOL. 115-121 (1989).
- Smolenski, Walter J., et al., *Biodegradation of Cresol Isomers in Anoxic Aquifers*, 3(4) APPL. ENVIRON. MICROBIOL. 710-716 (Apr. 1987).
- Spain, Jim C., et al., *Enzymatic Oxidation of p-Nitrophenol*, 88(2) BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS 634-641 (1979).
- Stevens, Todd O., *Biodegradation of Dinoseb (2-sec-Butyl-4,6-Dinitrophenol) and Bioremediation of Dinoseb-Contaminated Soils* (Nov. 1989).
- Stevens, Todd O., et al., *Biodegradation of Dinoseb (2-sec-Butyl-4,6-Dinitrophenol) in Several Idaho Soils with Various Dinoseb Exposure Histories*, 56(1) APPL. ENV. MICROBIO. 133-139 (Jan. 1990).
- Stevens, Todd O., et al., *Selection and Isolation of Bacteria Capable of Degrading Dinoseb (2-sec-butyl-4,6-dinitrophenol)*, 2 BIODEGRADATION 1-13 (1991).
- Tiedje, James M., et al., *The Ecology of an Anaerobic Dechlorinating Consortium*, in ENVIRONMENTAL BIOTECHNOLOGY 3-14 (Omenn ed. 1988).
- Tratnyek, Paul G., *Abiotic Reduction of Nitro Aromatic Pesticides in Anaerobic Laboratory Systems Designed to Model Dissolved Organic Matter* (Aug. 1987).

continued . . .

3. Other References (continued)

- Tratnyek, Paul G., et al., *Abiotic Reduction of Nitro Aromatic Pesticides in Anaerobic Laboratory Systems*, 37 J. AGRIC. FOOD CHEM. 248-254 (1989).
- Tschech, Andeas, et al., *Methanogenic Degradation of Anthranilate (2-Aminobenzoate)*, 11 SYSTEM. APPL. MICROBIOL. 9-12 (1988).
- Vlassak, K., et al., *Dinoseb as a Specific Inhibitor of Nitrogen Fixation in Soil*, 8 SOIL BIOL. BIOCHEM. 91-93 (1976).
- Wallnöfer, P.R., et al., *Transformation of Dinitrophenol-Herbicides by Azotobacter Sp.*, 12 CHEMOSPHERE 967-972 (1978).
- Yang, Yan-Xi, et al., *Bacteria Transforming 2,4,6-trinitrotoluene (α -TNT) and Their Application*, in 92 CHEMICAL ABSTRACTS 375, Abs. No. 134719 (1980).
- Zeyer, Josef, et al., *Degradation of o-Nitrophenol and m-Nitrophenol by a Pseudomonas putida*, 32(2) J. AGRIC. FOOD CHEM. 238-242 (1984).
- Ziegler, K., et al., *Studies on the Anaerobic Degradation of Benzoic Acid and 2-Aminobenzoic Acid by a Denitrifying Pseudomonas Strain*, 149 ARCH. MICROBIOL. 62-69 (1987).
- Ziegler, Klaus, et al., *Activation of Aromatic Acids and Aerobic 2-Aminobenzoate Metabolism in a Denitrifying Pseudomonas Strain*, 151 ARCH. MICROBIOL. 171-176 (1989).

Pursuant to 37 C.F.R. §1.98(d), copies of the above-listed references are not included herewith. Nonetheless, if it would facilitate the convenience of the Examiner in the prosecution of the above-captioned new application, copies of all or any of the above-listed references will promptly be provided, by hand delivery, if desired upon a telephonic request for such made by the Examiner to the undersigned at any of the telephone numbers listed below the signature thereof on the last page of this document. The references can be provided individually or collectively in a tabulated looseleaf notebook with a correlating table of contents.

Pursuant to Manual of Patent Examining Procedure (M.P.E.P.) § 2001.06(b), the Examiner is respectfully requested to state in the record that each of the above-listed references have been considered in the present prosecution.

For convenience, copies of each of the following three (3) forms from the prosecution of the Parent Application are enclosed:

1. Form PTO-1449 listing references A1-A58 initialed by the Examiner on
December 13, 2002 (3 pages);
2. Form PTO-1449 listing references A1-A59 initialed by the Examiner on
December 13, 2002 (1 page); and
3. Form PTO-1449 listing references A1-A5 initialed by the Examiner on
December 13, 2002 (1 page).

DATED this 30th day of December, 2003.

Respectfully submitted,



KENT S. BURNINGHAM
Attorney for Applicants
Registration No. 30,453

TRASKBRITT, PC
230 South 500 East, Suite 300
Salt Lake City, Utah 84102 USA
Telephone: (801) 532-1922
Toll Free: (800) 900-2001
Facsimile: (801) 531-9168

KSB/tlb

N:\2411\3301.2us\ids.doc

Docket: 2411.3301.2US